

The relationship between affective and normative commitment: review and research agenda

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Summary

Meyer and Allen's (1991, 1997) three component conceptualization of organizational commitment (OC) includes affective (AC), continuance (CC), and normative (NC) commitment. However, AC and NC have not been as empirically differentiated as theoretically expected. Drawing on the extant literature, I review, integrate, and expand on arguments and evidence about the lack of AC-NC differentiation. I also propose several avenues for research that could help commitment scholars attain a clearer picture of the true relationship between AC and NC, as the extant literature has inadequately addressed many issues regarding construct differentiation. Specific, testable propositions address a variety of facets of the commitment literature, including construct definition and measurement, developmental processes, relationships among the components and their unique and joint effects on outcomes, and potential moderators of the AC-NC relationship. The goal of this paper is to spur future research into the AC-NC relationship in order to gain greater construct clarity. Copyright © 2006 John Wiley & Sons, Ltd.

Introduction

Arguably, the prevailing conceptualization of organizational commitment (OC) is that of Meyer and Allen (1984, 1991, 1997; Allen & Meyer, 1990, 1996). Meyer and Allen's view posits three ways that individuals can be bound to organizations. Affective commitment (AC) is a desire to belong to the organization. Continuance commitment (CC) is based on a belief that leaving the organization will be costly. Normative commitment (NC) is a sense of obligation to the organization. These have been succinctly summarized as: *wanting* (AC), *needing* (CC), and *being obliged* (NC) to stay with the organization. Meyer and Allen (1984, 1991; Allen & Meyer, 1990; Meyer, Allen, & Smith, 1993) developed the affective (ACS), continuance (CCS), and normative (NCS) commitment scales to measure these components.

Despite the popularity and support of Meyer and Allen's work, questions remain about their theory. One of the more contested issues is the lack of AC-NC discriminability (Ko, Price, & Mueller, 1997),

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leading to calls for more research on this relationship (Allen & Meyer, 1996). A recent meta-analysis found AC and NC to be correlated at 0.63 (Meyer, Stanley, Herscovitch, & Topolnysky, 2002), meaning that nearly 40%—a substantial value—of the variance in one is explained by the other. The purpose of this paper is to examine why AC and NC are so highly correlated that their distinguishability is in question. Any effort to position OC within its nomological net and to distinguish it from related constructs (e.g., identification, motivation) requires that we have a clear understanding of the construct itself. To that end, arguments in the extant literature regarding the discriminability of AC and NC are reviewed, integrated, and extended. In conjunction, a research agenda to examine the AC-NC relationship is advanced.

It is important to note that although individuals can be committed to a variety of foci (Meyer & Herscovitch, 2001; Reichers, 1985), such as occupations (Meyer et al., 1993) or unions (Fullagar, Gallagher, Clark, & Carroll, 2004), organizational commitment is the most developed of the various commitment constructs (Morrow & McElroy, 1993). For simplicity, discussion is framed in terms of organizational commitment for most of this paper, but these arguments are expected to apply to other foci as well. However, other foci might demonstrate different levels of AC-NC distinctiveness; this issue is explicitly dealt with in a later section.

This paper is organized by addressing the following issues in relation to AC, NC, and their interrelationship. First I briefly review each of the commitment components. This is followed by construct definition and measurement issues. Then, I address psychological processes that could influence the development of AC and NC, the structure of OC and what commitment affects, and characteristics of objects of commitment that could serve as moderators. This ordering represents the priority of the proposed research agenda.

The Components of Organizational Commitment

Affective commitment

AC is the affective bond an individual feels toward the organization, characterized by identification and involvement with the organization as well as enjoyment in being a member of the organization (Allen & Meyer, 1990; Meyer & Allen, 1997; Mowday, Porter, & Steers, 1982; O'Reilly & Chatman, 1986). Of the three components, AC has received the most research attention (Mathieu & Zajac, 1990; Meyer et al., 2002). Ample validity evidence exists for AC and the ACS, with strong correlations between the ACS and the Organizational Commitment Questionnaire (OCQ; Mowday et al., 1982; Porter Steers, Mowday, & Boulin, 1974) and similar relationships for the ACS and the OCQ with proposed antecedents and outcomes (Allen & Meyer, 1990; Dunham, Grube, & Casteneda, 1994; Meyer & Allen, 1984; Randall, Fedor, & Longnecker, 1990; Shore & Tetrick, 1991). Additionally, there is strong support for the antecedents, correlates, effects, and cross-cultural generalizability of AC (Allen & Meyer, 1990; Chen & Francesco, 2003; Cheng & Stockdale, 2003; Ko et al., 1997; Lee, Allen, Meyer, & Rhee, 2001; Mathieu & Zajac, 1990; Meyer & Allen, 1988, 1991, 1997; Meyer et al., 2002; Mowday et al., 1982; Palich, Hom, & Griffeth, 1995; Wasti, 2002; 2003a; 2003b).

Continuance commitment

CC is the extent to which a person needs to stay with the organization, due to the costs of forgoing benefits associated with an individual's investments in the organization (i.e., 'side bets'; H.S. Becker, 1960;

Allen & Meyer, 2000; McGee & Ford, 1987). Theoretically, CC should be related to turnover and turnover intentions, but not to behaviors (e.g., citizenship) beyond those required to maintain membership (Meyer & Allen, 1991; 1997). This view is empirically supported (Meyer et al., 2002).

Normative commitment

Last introduced and least studied, NC is the extent to which a person is obligated to stay with the organization (Meyer & Allen, 1991; 1997). NC's definition has changed since its inception (Allen, 2003). NC was originally based on Weiner's (1982) work on the internalization of norms about loyalty to organizations. NC later became an obligation to stay with the organization, without specific reference to social pressures about loyalty (Allen & Meyer, 1996; Meyer et al., 1993). More recently, the obligation has subtly changed, alluding to reciprocity for a benefit (Meyer et al., 2002). Some of the definitional changes have been reflected in revisions to the NCS (Meyer & Allen, 1991; Meyer et al., 1993). Across these definitions, the core nature of NC is the employee's sense of obligation; here, NC is defined as the individual's bond with the organization due to an obligation on the part of the individual.

Discriminability evidence

Theoretically, AC, NC, and CC are distinct ways that an individual can bond with an organization. The literature has consistently displayed discriminant validity for CC through the distinctiveness of the CCS from the ACS and NCS and through differential relationships with other variables as compared to AC and NC. However, AC and NC have not exhibited such clear differentiation. Although confirmatory factor analyses typically show that ACS and NCS items load on different factors (Chen & Francesco, 2003; Dunham et al., 1994; Ko et al., 1997; Meyer et al., 1993), the latent factors and scale scores tend to be moderately to highly correlated (Allen & Meyer, 1990; Chen & Francesco, 2003; Dunham et al., 1994; Ko et al., 1997; Meyer et al., 1993; Meyer et al., 2002). Additionally, the NCS is correlated with the OCQ and the ACS to a similar degree (Allen & Meyer, 1990; Dunham et al., 1994), suggesting that the AC–NC relationship is not due to idiosyncratic issues in ACS and NCS item development. Also, little research has been conducted thus far on proposed antecedents, correlates, and outcomes unique to NC, leaving unclear whether NC has causes and effects that differ from AC (Meyer et al., 2002). In sum, the accumulated evidence does not bode well for the proposition that AC and NC are distinct. However, it is also clear that further research is needed before this matter of AC–NC differentiation can be settled. I turn now to the first issue—measurement and meaning of NC—deserving further research attention.

Meaning and Measurement

Definitional and measurement issues could be the source of AC–NC convergence. Clear construct definitions are necessary to be able to represent those constructs with items. Measures that do not validly represent their latent constructs could lead to spurious relationships.

Meyer and Allen developed and later revised the ACS and NCS, shortening each from eight items (Allen & Meyer, 1990) to six (Meyer et al., 1993). Two items from the original ACS that had the lowest factor loadings in previous studies were deleted to create the six-item ACS (Meyer et al., 1993).

Greater revision was undertaken for the NCS. The original NCS items referenced the respondent's feelings about organizational loyalty generally (e.g., 'Jumping from organization to organization does not seem unethical to me at all'). The more recent NCS focuses on obligations to the current organization (e.g., 'I owe a great deal to my organization').

Although the NCS was revised in order to better reflect NC's theoretical underpinnings and the revised NC definition (Meyer et al., 1993; Meyer et al., 2002), Meyer et al.'s (2002) meta-analysis demonstrated that scale version moderates the AC–NC correlation, with the newer measures *more* strongly related than the original scales ($\rho = 0.77$ vs. 0.54). This suggests that scale revisions have led to *less* differentiation between AC and NC. Given the long-standing construct validity evidence for AC, as well as the validity evidence for the ACS, it seems that definitional and measurement problems are more likely to reside in NC and the NCS.

Culture and the conceptualization of NC

One issue regarding NC definition that needs greater attention is cultural effects on the experience and content of NC. It may be the case that the general concept of NC—as a norm-influenced obligation to the organization—is generalizable across cultures, but that the specific norms referenced in the construct definition are not (Allen, 2003). Obligations could arise regardless of culture, but why obligations occur could vary greatly across cultures. Further, various cultures view obligations differently, with individualist cultures experiencing greater dislike and resentment than collectivist cultures (Berg, Janoff-Bulman, & Cotter, 2001; Janoff-Bulman & Leggatt, 2002). Thus, I propose:

Proposition 1a: The construct of NC, described as a mindset of obligation and without reference to specific norms, will demonstrate construct validity across cultures.

Proposition 1b: Etic-emic conceptualizations of the nomological net surrounding AC and NC will demonstrate better construct validity than will a universalistic nomological net.

Meyer et al.'s (2002) meta-analysis showed that geographic location of the sample moderated the AC–NC relationship, with stronger relationships outside North America than inside. This could be due to translation difficulties. Other languages might not have words with the literal meanings of the terms in the ACS and NCS, which were developed in English and in a Western culture (Cheng & Stockdale, 2003; Ko et al., 1997; Vandenberghe, 2003). However, it may be the case that AC and NC have converged because the content of the items has been imposed top-down by researchers rather than communicated bottom-up from the relevant population, making the items poor representations of the constructs in some cultures (Triandis, 1992; van de Vlier & Leung, 1997). Wasti (2002; 2003a; 2003b) has addressed this issue empirically by creating etic-emic commitment scales for use in Turkey, including both Meyer et al. (1993) items and culture-specific items developed through interviews with Turkish residents. Although Wasti's work shows a strong ACS–NCS correlation, it also exhibits discriminant validity through relationships with other variables. Thus, Wasti's work suggests that explicitly including content relevant to the population of interest is important. Therefore, I propose:

Proposition 1c: Etic-emic NCS and ACS scales will be better differentiated across cultures than are the current scales.

The word 'feelings' in NCS items. It may be the case that because both the ACS and the NCS use words, such as 'feelings' in their respective items, respondents rely on their general affective tone toward the organization when responding to these items (Jaros, 1997). Jaros (1997) argued, '[A] greater degree of operational clarity between [AC and NC] could perhaps be achieved by developing

additional scales items [for the NCS] that tap an employee's beliefs or thoughts about their obligation to the organization, rather than feelings' (p. 332). Revisions may be difficult, given the colloquial way that (in English) we state that we 'feel obligated' to actions or entities, even though this 'feeling' is not an actual emotion. However, revisions such as 'I do not *have (feel)* an obligation to remain with my current employer' and 'I would *be letting my current employer down (feel guilty)* if I left my organization now' (emphasis added; words in parentheses are in the current NCS items; Meyer et al., 1993) could occur. Such revisions could potentially stem any cross-contamination from AC that 'feelings' language might cause.

Proposition 2: NCS items without 'feelings' language will have greater differentiation from ACS than the current NCS items.

Research agenda for meaning and measurement issues

Further NC conceptualization and scale development and validation are needed. Qualitative research should be conducted to examine the types and experience of norms that influence the individual's obligation to the organization, as well as what obligations mean in different cultures. Such research should be engaged not just to develop better NCS items, although that could be one objective. Rather, the goal should be to illuminate the universalistic and particularistic components of the nomological network surrounding NC. By recognizing that the central concept can be the same across cultures, but that some of its antecedent influences, correlates, and consequences can differ across cultures, we as a field should be better able to demonstrate construct validity. Qualitative research is the best means for these goals, as continuing to conduct quantitative research with the usual constructs and scales will continue to get us what we've always gotten.

Item content should be examined more closely. Attempts should be made to reduce possible AC cross-contamination by eliminating NCS wording that could evoke the respondent's *affective* bond to the organization. Etic-emic scales should be considered, especially for NC, in order to reflect the experiences of the population of interest. To determine whether definition and measurement changes improve AC–NC differentiation, participants could complete the current ACS and NCS as well as any new items. Comparing correlations among current and revised scales and their correlates could establish whether scale revisions have the intended effect. Additionally, cognitive interviews could be conducted in order to determine how respondents interpret items and why they respond in the ways that they do (Desimone & Le Floch, 2004).

Finally, it should be noted that researcher inertia has dampened the development of AC and NC research and measurement. Although there have been previous calls for scale revision (Culpepper, 2000; Magazine, Williams, & Williams, 1996) or for use of the newer versions of the ACS and NCS (Allen & Meyer, 1996; Meyer & Allen, 1997), not all researchers take heed. Although there is often a perceived bias against changing measures that are embedded in the literature, carefully developed and validated new items representing these constructs would be welcome in the OC research literature.

Antecedent Psychological Processes

Much OC research is cross-sectional. Cross-sectional work has generally supported the propositions that AC arises from individual characteristics, job characteristics, organizational structures, and work

experiences that together create and state individuals' needs (Allen & Meyer, 1990; Meyer & Allen, 1988; 1991; 1997; Meyer et al., 2002; Mowday et al., 1982). NC research has typically focused on antecedents that are also related to AC, showing that NC is less strongly related to these constructs than is AC (Allen & Meyer, 1990; 1996; Meyer et al., 2002; Randall et al., 1990). A few recent studies have examined the unique theoretical antecedents of NC, successfully demonstrating differentiation from AC (Cheng & Stockdale, 2003; Kondratuk, Hausdorf, Korabik, & Rosin, 2004).

However, cross-sectional research cannot speak to how OC components develop or how they influence each other in the developmental process. As a prime example, NC theoretically develops through lifelong socialization and acculturation, as well as organizational socialization (Wiener, 1982). NC has also been posited to develop through reciprocity norms, such that employees perceive organizational investments in them as 'reverse' side bets that must be repaid (Meyer & Allen, 1997) or through psychological contracts (Meyer & Allen, 1997; Meyer, Allen, & Topolnytsky, 1998), the employee's perception of mutual obligations with the organization (Rousseau, 1995). Little work has been attempted to examine these propositions or others regarding the development of OC and its components. In this section, I review some psychological processes that may explain the apparent AC–NC convergence, and why cross-sectional research has failed to detect AC–NC differentiation.

Pre-entry processes and AC development

In theory, NC develops—at least in part—prior to organizational entry through familial and cultural socialization processes; some individuals are socialized to be sensitive to loyalty and reciprocity norms whereas others are not. AC, on the other hand, develops at the organization through the fit between workplace and individual characteristics, especially through workplace experiences (Meyer, Bobocel, & Allen, 1991; Meyer, Irving, & Allen, 1998) and in meeting employee pre-entry expectations (Caldwell, Chatman, & O'Reilly, 1990; Meyer & Allen, 1991, 1997; O'Reilly, Chatman, & Caldwell, 1991). Often overlooked in this view is that some AC precursors, such as values or needs, develop prior to organizational entry. What individuals will perceive to be positive or negative workplace experiences, which will have the greatest impact on their AC, and which organizations individuals join are all likely to have pre-entry influences.

The attraction-selection-attrition model (ASA; Schneider, 1987; Schneider, Goldstein, & Smith, 1995) suggests that pre-entry experiences is one reason why individuals join particular organizations and not others; thus, the creation of AC is not a random act of coincidental matching of values but rather intentional, thoughtful efforts of people and organizations. Pre-entry expectations exist, by definition, before individuals join organizations and might be developed, in part, through familial and cultural socialization. Additionally, the experiences that are valued are also likely to be influenced by familial and cultural socialization. Thus, it seems possible that some of the same processes might influence both AC and NC.

Proposition 3: Familial and cultural socialization contribute to the development of each of AC and of NC.

AC and work experiences as a precursor of NC¹

AC develops in large part through work experiences (Meyer et al., 1991; Meyer et al., 1998). NC—especially when the obligation is developed through *reciprocity*—could develop in response to the

¹I thank the reviewers for the suggestion that AC develops before NC.

experiences that also engender AC. That is, the positive experiences that lead an employee to become affectively attached to an organization might be perceived as investments in the individual that the individual should pay back to the organization. High AC itself—as a pleasurable experience—could also be viewed as a positive work experience that the employee should reciprocate to the organization. Thus, work experiences could lead to the development of both NC and AC, and AC could encourage NC development.

Proposition 4a: AC develops prior to and precipitates the development of NC.

It bears noting that Powell and Meyer (2004) studied the effect of side bets on OC. Their research showed that NC was predicted by socially-based side bets (e.g., others' expectations), leading Powell and Meyer to suggest that NC might be a form of CC. Their results can also be cast in terms of psychological contracts, such that NC is similar to a relational and CC to a transactional contract (Rousseau, 1995). When individuals believe that personal investments have been made in them, they develop a personalized, social contract with the organization that they work to fulfill (Rousseau, 1995). Viewed this way, Powell and Meyer's work is consistent with the view that the positive work experiences that lead to AC also lead to NC. Positive experiences would serve as reverse side bets (i.e., investments made by the organization in the individual) that employees would be obliged to repay. Regardless of the relationship between OC and psychological contracts, Powell and Meyer have demonstrated that AC, NC, and CC are all induced by side bets, which could affect the AC–NC relationship because of shared antecedents.

NC and social influences as a precursor to AC

Salanick and Pfeffer's (1978) social information processing model states that social settings provide information that helps individuals make sense of the world. This information includes the attitudes of others around the individual. Social information processes could have a variety of effects on OC. I will describe a few situations in which such processes could influence the AC–NC relationship.

It may be unclear to new employees what their bond to the organization and its various components should be. New employees might turn to coworkers in order to gauge this; they will also likely emphasize information from more tenured individuals, as they will seem to be better sources of information; tenure is positively associated with AC (Mathieu & Zajac, 1990). Thus, new employees will develop high AC when their coworkers have high AC. Further, because new employees use information from others in the work environment, the others' mindsets will appear to be a normative property of the organization. Thus, new employees might develop high NC because they perceive that commitment is owed to the organization.

Similarly, Heider's (1958) balance theory suggests that in order to sustain positive social relationships, the individual's and the relevant other's attitudes toward a third entity should be consistent. For OC, if an individual is obliged to maintain a relationship with an other (i.e., NC), and the other has high AC toward the organization, then the focal individual will also develop high AC. This may especially be the case when the other was instrumental in the individual's organizational entry; the individual will likely feel obligated to the other, who probably has high AC if willing to promote the organization to the focal individual (Meyer et al., 2002). Similarly, if the other in a relationship has low AC, then the focal individual would likely have low AC as well. It should be noted that similar arguments can be constructed for AC to a relevant other who has NC toward the organization. Thus, I offer the following competing proposition.

Proposition 4b: NC develops before and precipitates AC.

It should be acknowledged that the direction of influence between AC and NC is probably not one way. Instead, AC and NC are likely to influence each other over time in a non-recursive manner. Along these lines, Allen and Meyer (1990) noted:

One might speculate that as moral obligations are internalized to form personal norms, they influence individuals' feelings about what they *want* to do. Alternatively, to justify behaving in accord with their desires, individuals may come to accept that their actions are morally right (emphasis original, p. 11).

Thus, the following proposition is included.

Proposition 4c: AC and NC reciprocally influence each other's development in non-recursive ways.

Research agenda regarding psychological processes

The preceding review of psychological processes is not exhaustive. Instead, it illustrates some of the processes that could contribute to the convergent AC–NC relationship, but that our theories have not considered or our research has not examined. The methodological clarion call is clear: cross-sectional research is incapable of capturing the processes associated with the development of commitment. Cross-sectional designs can describe the relationship between AC and NC at any given time. Future cross-sectional work can go in new directions, such as examining partial AC–NC correlations controlling for shared antecedents in order to determine the extent to which the apparent AC–NC convergence is due only to their mutual relationships with other variables. But cross-sectional designs cannot address questions regarding how the AC–NC relationship came to be. Although AC and NC appear to be correlated at points in an individual's organizational life, AC and NC may develop through common, distinct, and/or mutually influential routes; understanding the development of AC and NC will bear greater insight into the nature of commitment than does a single-time index of the covariance of AC and NC.

Conducting research on individuals as they enter an organization and tracing commitment over several months or years (e.g., longitudinal studies beginning Day 1 of employment) cannot sufficiently capture the on-going development of commitment. Longitudinal research alone cannot account for developmental processes, as both the changes in commitment over time as well as the *antecedents of those changes* must be examined (Beck & Wilson, 2001). Using employees from one organization post-selection—even pre-entry—may underestimate the effects of pre-entry processes such as socialization that engender commitment (Moreland & Levine, 2001). ASA processes (Schneider, 1987) could minimize the individual differences available for assessment in a single organization sample that might help explain how commitment components develop. Thus, we must consider designs that have not traditionally been used in OC research.

Commitment studies should examine populations prior to organizational entry, and even prior to organizational attraction. One potential way to do this would be to sample across multiple universities within a common set of majors or professional schools. Assessments of individual differences and organizational attraction processes pre-entry, as well as socialization experiences and other work-related experiences post-entry, might allow researchers to trace the development of commitment while preserving many pre-selection differences between individuals that might be attenuated when studying individuals within a single organization.

Additionally, we must refine our approaches to the development of commitment. Although there is a great body of work regarding the antecedents of commitment, there is little to guide research regarding changes in commitment over time. OC research must include true developmental designs (Beck &

Wilson, 2001); latent growth modeling, for example, is a method that allows for the tests of reciprocal relationships among constructs over time as well as changes in those constructs and their interrelationships (Bentein, Vandenberghe, Vandenberg, & Stinglhamber, 2005; Lance, Vandenberg, & Self, 2000). Social network analyses can evaluate the extent to which the hypothesized social influence processes affect commitment (Carrington, Scott, & Wasserman, 2004; Krackhardt & Porter, 1986). By examining the social networks among organizational members, the changes in those networks over time, and their recursive effects, others' influence on employees' commitment may be better understood.

These suggestions do not exhaust the list of studies that could address psychological processes involved in OC development. They do illustrate that OC research needs to break away from cross-sectional and traditional longitudinal designs in order to examine developmental trends. In doing so, we may be able to identify when and how AC and NC begin to converge.

Relationships among the Commitment Components and their Effects on Outcomes

Edwards (2001) described various ways that a broad multi-dimensional construct is related to its components. These models include superordinate (higher-order latent construct manifests as specific components), aggregate (components combine to create a general construct), and multivariate models (components have different causes and consequences; broad concept is most useful as a general organizing principle). Meyer and Allen's (1991, 1997) framework has been consistently clear that AC, CC, and NC are distinct and have different causes and consequences. Thus, based on Edwards (2001), the OC construct is theoretically multivariate. However, this model of OC has not been validated in the literature. Edwards (2001) reviews tests of many multidimensional models in detail. First-order factor analyses, whether confirmatory or exploratory, of Meyer et al.'s (1993) scales provide only a partial test of the multivariate model proposition. Instead, competing multidimensional models within a structural equations modeling framework must be examined in order to determine whether OC is truly multivariate, as described in theory (Edwards, 2001). Given the theoretical work and empirical evidence to date, it seems likely that the multivariate model will be supported.

Proposition 5: A multivariate model best characterizes OC and its components.

Recent theory refines the multivariate view of OC. Meyer and Herscovitch (2001) argued that particular combinations of commitment, termed profiles, determined by the level (high, low) of each component, might be differentially related to behaviors. They suggested that for 'pure' profiles (i.e., high on one component, low on the others), AC would have the greatest effect on behavior, followed by NC and then CC. They further hypothesized that NC and CC could attenuate the effects of AC on outcomes, as could NC and CC for each other.

Meyer and Herscovitch (2001) aid our understanding of the AC–NC relationship by describing where discriminant validity for AC and NC should be found. First, their framework suggests that NC should have less strong relationships with outcome variables than would AC. Second, the framework describes situations in which AC and NC should differentially affect outcomes, such as through different interaction patterns with CC. Finally, as will be discussed (see Profiles), some combinations of AC, NC, and CC might be less common or might have similar relationships with outcomes, providing further evidence for or against AC–NC coincidence. Research on the relationships among the components and their effects on outcomes is reviewed the following sections.

Main effects

Meyer and Allen (1991, 1997; Allen & Meyer, 1990, 1996) delineated specific main effects propositions. Consistent with Meyer and Herscovitch (2001), AC has the strongest bivariate effect on outcomes, followed by NC and CC (Meyer et al., 2002). However, when AC, NC, and CC are evaluated simultaneously (e.g., entered as a block in regression), different results emerge. Although NC is typically correlated with turnover and other theorized outcomes, it does not always affect turnover when AC and CC are accounted for (Chen & Francesco, 2003; Herscovitch & Meyer, 2002; Jaros, 1997; Randall et al., 1990; Vandenberghe et al., 2001). This suggests that AC, NC, and CC affect outcomes in ways that main effects and/or simple effects analyses alone cannot detect.

Interactions

Of the few studies reporting interactions among AC, NC, and CC, most have found only two-way interactions to be significant (see Gellatly, Luchak, & Meyer, 2004 for a three-way interaction), with one component having a stronger effect on outcomes when the other is weak (Chen & Francesco, 2003; Cheng & Stockdale, 2003; Jaros, 1997; Randall et al., 1990; Snape & Redman, 2003; Somers, 1995). The two-way interactions typically involve NC and CC (Cheng & Stockdale, 2003; Gellatly et al., 2004; Jaros, 1997; Randall et al., 1990; Snape & Redman, 2003), with NC-AC interactions reported occasionally (Chen & Francesco, 2003). These results are consistent with Meyer and Herscovitch's (2001) propositions, but do not completely test their view, because interaction terms demonstrate how the effect of one component on an outcome is *linearly* qualified by another. The mathematical process does not speak to non-linear relationships among the components and their effect on outcomes.

Profiles

A profile is a person's standing on each of the three commitment components. The use of profiles permits relationships among the commitment components and their effect on dependent variables to be examined in non-linear, idiosyncratic ways. An additional benefit of the profile approach is that if theoretically possible profiles do not emerge empirically, we may be able to determine something about the nature of the relationships among the components. For example, if there are no profiles that have contrasting levels of AC and NC (i.e., one high while the other is low), then this provides further evidence that AC and NC co-occur in a direct way.

Empirical analysis of commitment profiles precedes the recent theoretical work. Becker and Billings (1993) and Swailes (2004) used cluster analyses to create profiles of the bases of commitment (identification, internalization, compliance; O'Reilly & Chatman, 1986) to various foci, finding four different profiles that were differentially related to outcomes: committed, uncommitted, globally committed (i.e., to broad foci: the organization, top management), and locally committed (i.e., to local foci: supervisors, coworkers). Herscovitch and Meyer (2002) and Wasti (2005) created profiles based on AC, NC, and CC to test Meyer and Herscovitch's (2001) propositions. Their results generally supported Meyer and Herscovitch's (2001) mean effects hypotheses, providing evidence that AC, NC, and CC interrelate in complex ways.

However, mixed evidence was found for the existence of the various theoretical profiles. Herscovitch and Meyer (2002) constructed profiles based on median splits of AC, NC, and CC to an organizational change, whereas Wasti (2005) constructed profiles empirically through cluster analysis. Wasti's work provides an empirical test of the existence of possible profiles, whereas Herscovitch and Meyer provide

a test of the prevalence of several theoretically possible profiles. In both studies, the least populated profiles were those that had contrasting AC and NC levels (e.g., high AC and low NC), providing further evidence that AC and NC overlap.

Research agenda for relationships among OC components and their effects on outcomes

No one way of examining the relationships among AC, NC, and CC and their hypothesized consequences is best. All provide important, unique information. Future studies should report as many of these effects as possible, so that the joint and interactive effects of AC, NC, and CC can be better understood. However, as a newer theoretical and empirical approach, research using profiles is the major focus of this section.

Empirical construction is paramount to the profile approach because it allows for tests (e.g., chi-square) of the prevalence of particular profiles as well as the emergence of unanticipated profiles. Until there is a theoretical explanation as to why some profiles should be more populated than others, the assumption that the sample be distributed evenly across the different cells is probably the appropriate null model. Deviations from even distributions across the theorized profile categories provide evidence regarding AC–NC discrimination; when profiles differing in AC and NC levels are poorly populated, it suggests that AC and NC are convergent. As new profiles emerge (see Becker & Billings, 1993; Swailes, 2004; Wasti, 2005) and are consistently found across studies, expanded theory must address (a) why these profiles exist and (b) how they relate to outcomes.

Commitment should be assessed for multiple foci within samples. Such studies could examine whether the AC–NC relationship differs across foci. Of particular interest are profiles across foci. Classification analyses could assess whether individuals tend toward the same profiles across foci. Additionally, profile analyses can create profiles as well as assess profile similarity within or between foci (Davison, Gasser, & Ding, 1996; Johnson & Wichern, 1992; Kim, Frisby, & Davison, 2004). Such analyses will be able to determine (a) whether there are significantly different profiles within a single focus of commitment; (b) whether there are different sets of profiles across different foci; and (c) whether individuals tend toward the same profiles across foci. If the set of profiles differ across foci, moderators of the relationships among the OC components would then need to be identified. However, it may be the case that once individuals identify an object as a potential focus of commitment, they tend toward a particular profile due to individual differences in commitment propensities. Thus, profile comparisons across foci at the individual and the focus level could bring greater insight into the relative influence of person- and situation-variables on OC. To that end, I turn next to characteristics of foci that could serve as moderators of the AC–NC relationship.

Moderators

Meyer and Herscovitch (2001) argued that the nature of commitment, as a mindset that binds individuals to entities or actions, is the same regardless of the object (e.g., organizations, workgroups, losing weight). However, the nature of the object can differ, and it may be the case that the AC–NC relationship varies across foci (Allen, 2004). Some characteristics of foci that could moderate the AC–NC relationship are reviewed next.

Societal norms about foci

It may be possible to have obligations to some foci without developing an affinity for them. This could occur to the extent that there are strong societal values about commitment and loyalty to foci. In today's Western society, loyalty is built through exchanges between the employee and the organization (Rousseau, 1995). No general guiding societal values dictate that organizations are owed loyalty for the sake of loyalty; although there may be localized norms in specific families, generations, or 'company towns,' they are likely operating as individual difference (and random, unmeasured) variables in our OC studies.

Individuals commit to foci other than organizations, each with its own norms. A prime example is family. There are many norms about commitment to family, made plain by aphorisms such as 'blood is thicker than water.' We try to meet the needs of our families, even if we do not like our relatives, because norms state that this is right; failing to meet familial obligations leads to guilt. Thus, there are strong normative values, operating at a societal level, that direct our behavior with our families. When strong norms exist, AC–NC differentiation may be more likely.

The proposed moderation by societal values could be explained through cognitive dissonance theory (Festinger, 1957), at least in individualist societies where cultural norms suggest that one *should* do what one *wants* to do (Hofstede, 1980). When individuals help family because of AC, they are acting in consonance with their cognitions. However, when individuals act contrary to their cognitions, such as helping family members when AC to the family is low, cognitive dissonance occurs. Dissonance creates psychological discomfort, which individuals are motivated to reduce (Festinger, 1957). Reduction of dissonance can occur through either a change in the discrepant cognition to match the behavior (e.g., low AC becomes high AC) or through justifying the behavior by searching for an alternate plausible reason for engaging in the behavior. Strong normative expectations of obligation may be able to reduce dissonance because a recognizably valid explanation for the behavior exists; these strong normative expectations of obligation are also likely to lead to the development of NC. Thus, it is possible that for some foci—many of which are not commonly studied in organizational disciplines—individuals can justify behavior by appealing to NC because NC to that object (e.g., the family) is highly recognizable, widespread, and sanctioned. For other foci (e.g., the organization), although NC may be experienced, it does not serve as a good explanation for action because obligations to that object are not widely endorsed; AC must also be high in order to justify the behavior. Thus:

Proposition 6a: The AC–NC relationship will be moderated by normative expectations regarding obligation to foci, such that foci with stronger expectations of obligation will exhibit greater AC–NC differentiation.

Importantly, foci are not seen exclusively as 'wants' and 'shoulds.'² Many activities are both wanted and obligatory, or can be induced to be perceived that way (Berg et al., 2001; Janoff-Bulman & Leggatt, 2002). There are cross-cultural (e.g., individualism, collectivism) and individual (e.g., idio-centrism, allocentrism) differences in the desire to be seen as dutiful and compliant, such that having and fulfilling obligations to others is pleasurable for some individuals (Bontempo, Lovel, & Triandis, 1990; Janoff-Bulman & Leggatt, 2002; Markus & Kitayama, 1991; Triandis, 1995). Thus, OC research should consider not only expectations of obligations to foci, but also cultural norms—and individual identification with those norms (Deci & Ryan, 1985; 1991)—about the meaning and fulfillment of obligations. Deriving pleasure from meeting obligations could lead to AC–NC convergence. Thus:

Proposition 6b: The effect of normative expectations on AC–NC differentiation could be exacerbated or attenuated by cultural syndromes affecting the role of obligation in an individual's worldview.

²Thanks to managing editor John Meyer for suggesting this alternate explanation.

Breadth of foci

The AC–NC relationship could vary across foci according to their breadth. Reichers (1985) argued that individuals experience organizations not as broad, encompassing entities but rather as coworkers, clients, supervisors, and the like, each of which could serve as a focus of commitment. According to Reichers (1985), individuals evaluate broad entities across their many subunits, each of which could compensate for others (e.g., low AC to the supervisor compensated by high AC to coworkers). Assessments of broad entities could exhibit stronger AC–NC correlations because the breadth—a sweeping generalization across the entity and its subunits—could mask differences in commitment to each unit. In contrast, smaller targets would receive more finely-tuned assessments because there are fewer, if any, subunits subsumed in ratings. Herscovitch and Meyer's (2002) work supported this view, finding different AC–NC correlations for commitment to organizations (.78) and to an organizational change program (.58).

Proposition 7: Breadth of foci moderates the AC–NC relationship, such that smaller foci with fewer subunits will demonstrate greater differentiation.

Organizational cultures

Norms and breadth are especially relevant when considering commitment to organizations and their components, as organizationally-based norms may play a role. Organizational culture refers to the deep-rooted values and assumptions that are shared by organizational members which communicate norms about the behavior and attitudes expected of members (O'Reilly & Chatman, 1996; Rousseau, 1990). Organizational cultures vary in strength, with stronger cultures having more salient norms (Rousseau, 1990) and little differentiation within and across the organization's various subunits (O'Reilly & Chatman, 1996). Organizational culture could influence the AC–NC relationship and qualify Propositions 6a, 6b and 7.

According to O'Reilly and Chatman (1996), organizational cultures operate as social control mechanisms, setting the tone for organizational life. Cultures communicate behaviors and attitudes that one needs to exhibit to be seen as part of the in-group and to maintain membership with the organization. The content of cultures can vary, referencing a variety of components of organizational life including safety, customer service, productivity, and quality, among many others. The cultural content relevant to this paper is those values and norms that communicate expectations of commitment, especially obligation (NC), and identification and internalization (AC; O'Reilly & Chatman, 1986). An example of an organization that would be high in expectations both of obligation and of internalization and identification is the military.

Proposition 8a: Organizational cultures that contain strong norms for obligation will facilitate high levels of NC.

Proposition 8b: Organizational cultures that contain strong norms for internalization and identification will facilitate high levels of AC.

If these cultural components are found to influence NC and AC, respectively, then the extent to which these cultural components co-occur will influence the convergence of AC and NC. In cultures in which there are norms encouraging obligation, but no norms (or norms against) encouraging identification with and internalization of organizational values, AC and NC should differentiate. Expectations of what the employee *owes* do not necessarily speak to what the employee *feels*, and vice versa. However, when the values of obligation and of identification and internalization co-occur, AC and NC will as well.

Proposition 8c: To the extent that values and norms about obligation and about identification and internalization and about obligation co-exist in an organization, AC and NC will be related.

Further, the strength of the organizational culture will dampen the proposed effect of foci breadth on the AC–NC relationship. Because strong cultures consistently permeate through the levels of an organization, when strong cultures contain norms encouraging both obligation and internalization and identification, the AC–NC relationship should be consistent across the hierarchy of organizational constituencies to which an individual belongs. This is because a strong culture controls behavior and attitudes in a consistent way across the organization, regardless of the breadth of the particular subunit. Little differentiation in the AC–NC relationship will occur across the hierarchy because the strong culture will lead to consistent amounts of AC and NC to each of the constituencies to which the individual belongs. That is, an individual's AC (NC) to co-workers should be very similar to his or her AC (NC) to the department, division, and organization because of the strong culture. This will lead to little differentiation in the AC–NC relationship because AC and NC would not vary. Thus:

Proposition 8d: Cultural strength will moderate the effect of breadth of foci on the AC–NC relationship, with strong cultures reducing the effect of foci breadth.

It is important to note that in some organizations there is a weak overall culture but strong cultures for organizational subunits. In such organizations, there may be a reversal of some of these propositions. This is because a strong culture for an organizational subunit might ameliorate the proposed effect of breadth of the subunit. How a weak organizational culture will affect the AC–NC relationship will depend in large part on the content of the culture regarding obligations and regarding internalization and identification. Additionally, it should be noted that propositions 8a–d might be better tested at the organizational level, rather than the individual level. If organizational culture is a strong influence on AC and NC, and organizational culture is strong, then there may not be sufficient variability within a single organizational context to test these propositions.

Research agenda for moderators

Commitment research should examine foci that vary along important dimensions such as strength of norms and breadth. To do so, we may need to expand the organizational domains in which our research is conducted. It is possible that there is a sampling bias in OC research that has made it difficult to demonstrate AC–NC discriminability. The sampling locations for most OC studies have been corporate, production, service, military, or educational settings that have moderate to large numbers (e.g., 100 or more) of employees. This is not to say that these settings are all the same; important variations across organizations have been recognized throughout the literature. However, missing from this list are such settings as family-owned businesses, small businesses in general, family-owned farms, volunteer organizations, religious organizations, and entrepreneurial ventures—all situations in which strong normative expectations might exist, leading to the effects described above. In such settings, individuals might work because they owe it to family or the enterprise, not because they enjoy the organization. By including these populations and situations in our commitment research, a different picture of the relationship between AC and NC might emerge.

Additionally, research should be conducted on nested foci. This would allow for within-individual comparisons of the AC–NC relationship across foci that differ in breadth. The cognitive aggregation arguments described above could be directly tested; commitment to lower-order units could be used to predict commitment to higher-order units. Nested foci research also has the added benefit of contributing to the commitment literature by testing the proposition that commitment is a mindset that consists of the same components across objects and domains (Meyer & Herscovitch, 2001). Cohen (1993) used

a matrix approach to assess AC across foci within individuals; his approach could easily be extended to include NC and CC. Cohen's matrix approach arrayed commitment items in rows and commitment foci in columns; respondents wrote their response, from a Likert-type scale, in each resulting cell. Cohen's methodology would be useful in that its simplicity should reduce fatigue effects for participants that could arise from lengthy surveys due to repetitions of items for each focus.

Finally, OC research should explicitly account for organizational culture. Organizational cultures impart controlling information about how employees should think, feel, and behave. The content and strength of those cultures could influence the AC-NC relationship both within and across organizational levels and units. Because the values that influence AC could covary with those that influence NC, the AC-NC relationship could be more a product of the situation that employees are embedded in than psychological processes that lead to AC and NC. However, previous research has not assessed the relevant organizational culture components to determine whether they influence AC and NC and whether they covary. Future research should measure the theoretically-related organizational culture components (i.e., values for identification and internalization and for obligation) along with AC and NC. Additionally, studies of socialization into the organizational culture are needed in order to determine the influence of organizational culture on the development of AC, NC, and their relationship.

Conclusion

The first goal of this paper was to review, integrate, and extend the arguments and findings in the theoretical and empirical literatures on AC, NC, and their interrelationship. The second goal was to advance a research agenda that could provide some guidance to better understand the relationship between AC and NC. I close by reiterating that the general order of this paper—measurement, antecedents, interrelationships, and moderators—is the general order in which research on the AC-NC relationship should proceed. Without good measurement, our research is inconclusive at best. Without examining how AC and NC arise, we cannot understand why they converge at particular points in organizational life and whether this convergence makes sense. Without understanding the relationships among the OC components, it is difficult to develop and refine theory. Further, without demonstrating differential effects of AC and NC on outcomes, the utility of retaining both constructs is unclear. Finally, without describing boundary conditions on the AC-NC relationship, we cannot judge whether discrimination or convergence should be expected. By proceeding in this order, we will be able to establish evidence needed for the next set of research questions.

As more evidence is accumulated, including research that addresses the issues raised in this paper, the nature of commitment, its components, and the relationships among them will be better understood. At that juncture, the question of the role of NC in the OC construct, as well as why AC and NC have been consistently related in the empirical literature, may be better put to rest. Until then, commitment researchers should continue to examine AC, NC, and CC.

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References

- Allen, N. J. (2003). Examining organizational commitment in China. *Journal of Vocational Behavior*, 62, 511–515.
- Allen, N. J. (2004, April). Invited discussant. In M.E. Bergman (Chair), Organizational commitment: construct refinement and expansion. Presented at the 19th annual conference of the Society for Industrial and Organizational Psychology, Chicago, IL.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment. *Journal of Occupational Psychology*, 63, 1–18.
- Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: an examination of construct validity. *Journal of Vocational Behavior*, 49, 252–276.
- Allen, N. J., & Meyer, J. P. (2000). Construct validation in organizational behavior research: The case of organizational commitment. In R.D. Goffin, & E. Helmes (Eds.), *Problems and solutions in human assessment: Honoring Douglas N. Jackson at seventy* (pp. 285–314). New York: Kluwer Academic/Plenum Publishers.
- Beck, K., & Wilson, C. (2001). Have we studied, should we study, and can we study the development of commitment? Methodological issues and the developmental study of work-related commitment. *Human Resource Management Review*, 11, 257–278.
- Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology*, 66, 32–42.
- Becker, T. E., & Billings, R. S. (1993). Profiles of commitment: an empirical test. *Journal of Organizational Behavior*, 14, 177–190.
- Bentein, K., Vandenberghe, C., Vandenberg, R., & Stinglhamber, F. (2005). The role of change in the relationship between commitment and turnover: a latent growth modeling approach. *Journal of Applied Psychology*, 90, 468–482.
- Berg, M. R., Janoff-Bulman, R., & Cotter, J. (2001). Perceiving value in obligations and goals: wanting to do what should be done. *Personality and Social Psychology Bulletin*, 27, 982–995.
- Bontempo, R., Lovel, S., & Triandis, H. (1990). Compliance and value internalization in Brazil and the U.S.: effects of allocentrism and anonymity. *Journal of Cross-Cultural Psychology*, 21, 200–213.
- Caldwell, D. F., Chatman, J. A., & O'Reilly, C. A. (1990). Building organizational commitment: a multifirm study. *Journal of Occupational Psychology*, 63, 245–261.
- Carrington, P., Scott, J., & Wasserman, S. (Eds.). (2004). *Models and methods in social network analysis*. New York: Cambridge University Press.
- Chen, Z. X., & Francesco, A. M. (2003). The relationship between the three components of commitment and employee performance in China. *Journal of Vocational Behavior*, 62, 490–510.
- Cheng, Y., & Stockdale, M. S. (2003). The validity of the three-component model of organizational commitment in a Chinese context. *Journal of Vocational Behavior*, 62, 465–489.
- Cohen, A. (1993). Work commitment in relation to withdrawal intentions and union effectiveness. *Journal of Business Research*, 26, 75–90.
- Davison, M. L., Gasser, M., & Ding, S. (1996). Identifying major profile patterns in a population: an exploratory study of WAIS and GATB patterns. *Psychological Assessment*, 8, 26–31.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L., & Ryan, R. M. (1991). A motivational approach to self: integration in personality. In R. Dienstbier (Ed.), *Nebraska Symposium on Motivation* (Vol. 38, 237–288). Lincoln: University of Nebraska Press.

- Desimone, L. M., & Le Floch, K. C. (2004). Are we asking the right questions? Using cognitive interviews to improve surveys in education research. *Educational Evaluation and Policy Analysis*, 26, 1–22.
- Dunham, R. B., Grube, J. A., & Castaneda, M. B. (1994). Organizational commitment: the utility of an integrative definition. *Journal of Applied Psychology*, 79, 370–380.
- Edwards, J. R. (2001). Multidimensional constructs in organizational behavior research: an integrative analytical framework. *Organizational Research Methods*, 4, 144–192.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston: Row, Petersen.
- Fullagar, C. J., Gallagher, D. G., Clark, P. F., & Carroll, A. E. (2004). Union commitment and participation: a ten-year longitudinal study. *Journal of Applied Psychology*, 89, 730–737.
- Gellatly, I. R., Meyer, J. P., & Luchak, A. A. (2004, April). Organization commitment and behavior: it's the nature of the commitment profiles that count! In M. E. Bergman (Chair), Organizational commitment: construct refinement and expansion. Presented at the 19th annual conference of the Society for Industrial and Organizational Psychology, Chicago, IL.
- Heider, F. (1958). *The psychology of interpersonal relations*. Wiley: Oxford, England.
- Herscovitch, L., & Meyer, J. P. (2002). Commitment to organizational change: extension of a three-component model. *Journal of Applied Psychology*, 87, 474–487.
- Hofstede, G. (1980). *Culture's consequences: International differences in work related values*. Beverly Hills, CA: Sage.
- Janoff-Bulman, R., & Leggatt, H. K. (2002). Culture and social obligation: when 'shoulds' are perceived as 'wants.' *Journal of Research in Personality*, 36, 260–270.
- Jaros, S. J. (1997). An assessment of Meyer and Allen's (1991) three-component model of organizational commitment and turnover intentions. *Journal of Vocational Behavior*, 51, 319–337.
- Johnson, R. A., & Wichern, D. W. (1992). *Applied multivariate statistical analysis* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.
- Kim, S.-K., Frisby, C. L., & Davison, M. L. (2004). Estimating cognitive profiles using profile analysis via multidimensional scaling (PAMS). *Multivariate Behavioral Research*, 39, 595–624.
- Kondratuk, T. B., Hausdorf, P. A., Korabik, K., & Rosin, H. M. (2004). Linking career mobility with corporate loyalty: how does job change relate to organizational commitment? *Journal of Vocational Behavior*, 65, 332–349.
- Ko, J.-W., Price, J. L., & Mueller, C. W. (1997). Assessment of Meyer and Allen's three-component model of organizational commitment in South Korea. *Journal of Applied Psychology*, 82, 961–973.
- Krackhardt, D., & Porter, L. W. (1986). The snowball effect: turnover embedded in communication networks. *Journal of Applied Psychology*, 71, 50–55.
- Lance, C. E., Vandenberg, R. J., & Self, R. M. (2000). Latent growth models of individual change: the case of newcomer adjustment. *Organizational Behavior & Human Decision Processes*, 83, 107–140.
- Lee, K., Allen, N. J., Meyer, J. P., & Rhee, K.-Y. (2001). The three-component model of organisational commitment: an application to South Korea. *Applied Psychology: An International Review*, 50, 596–614.
- Magazine, S. L., Williams, L. J., & Williams, M. L. (1996). A confirmatory factor analysis examination of reverse coding effects in Meyer and Allen's Affective and Continuance Commitment Scales. *Educational and Psychological Measurement*, 56, 241–250.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, 108, 171–194.
- McGee, G. W., & Ford, R. C. (1987). Two (or more?) dimensions of organizational commitment: re-examination of the affective and continuance commitment scales. *Journal of Applied Psychology*, 72, 638–642.
- Meyer, J. P., & Allen, N. J. (1984). Testing the "Side-Bet Theory" of organizational commitment: some methodological considerations. *Journal of Applied Psychology*, 69, 372–378.
- Meyer, J. P., & Allen, N. J. (1988). Links between work experiences and organizational commitment during the first year of employment: a longitudinal analysis. *Journal of Occupational Psychology*, 61, 195–209.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1, 61–89.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage Publications.
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78, 538–551.

- Meyer, J. P., Allen, N. J., & Topolnytsky, L. (1998). Commitment in a changing world of work. *Canadian Psychology*, 39, 83–93.
- Meyer, J. P., Bobocel, D. R., & Allen, N. J. (1991). Development of organizational commitment during the first year of employment: a longitudinal study of pre- and post-entry influences. *Journal of Management*, 17, 717–733.
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: toward a general model. *Human Resource Management Review*, 11, 299–326.
- Meyer, J. P., Irving, P. G., & Allen, N. J. (1998). Examination of the combined effects of work values and early work experiences on organizational commitment. *Journal of Organizational Behavior*, 19, 29–52.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: a meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61, 20–52.
- Moreland, R. L., & Levine, J. M. (2001). Socialization in organizations and work groups. In M. E. Turner (Ed.), *Groups at work: Theory and research. Applied social research* (pp. 69–112). Mahwah, NJ: Lawrence Erlbaum.
- Morrow, P. C., & McElroy, J. C. (1993). Introduction: understanding and managing loyalty in a multi-commitment world. *Journal of Business Research*, 26, 1–2.
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organization linkages: the psychology of commitment, absenteeism, and turnover*. New York: Academic Press.
- O'Reilly, C. A., III, & Chatman, J. (1986). Organizational commitment and psychological attachment: the effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, 71, 492–499.
- O'Reilly, C. A., & Chatman, J. A. (1996). Culture as social control: corporations, cults, and commitment. *Research in Organizational Behavior*, 18, 157–200.
- O'Reilly, C. A., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: a profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, 34, 487–516.
- Palich, L. E., Hom, P. W., & Griffeth, R. W. (1995). Managing in the international context: testing cultural generality of sources of commitment to multinational enterprises. *Journal of Management*, 21, 671–690.
- Pierce, J. L., & Dunham, R. B. (1987). Organizational commitment: pre-employment propensity and initial work experiences. *Journal of Management*, 13, 163–178.
- Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59, 603–609.
- Powell, D. M., & Meyer, J. P. (2004). Side-bet theory and the three-component model of organizational commitment. *Journal of Vocational Behavior*, 65, 157–177.
- Randall, D. M., Fedor, D. B., & Longnecker, C. O. (1990). The behavioral expression of organizational commitment. *Journal of Vocational Behavior*, 36, 210–224.
- Reichers, A. R. (1985). A review and reconceptualization of organizational commitment. *Academy of Management Review*, 10, 465–476.
- Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Sage: Thousand Oaks, CA.
- Rousseau, D. M. (1990). Assessing organizational culture: the case for multiple methods. In B. Schneider (Ed.), *Organizational climate and culture* (pp. 153–192). San Francisco, CA: Jossey-Bass.
- Salancik, G. R., & Pfeffer, R. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, 23, 224–254.
- Schein, E. H. (1990). Organizational culture. *American Psychologist*, 45, 109–119.
- Schneider, B. (1987). The people make the place. *Personnel Psychology*, 40, 437–453.
- Schneider, B., Goldstein, H. W., & Smith, D. B. (1995). The ASA framework: an update. *Personnel Psychology*, 48, 747–773.
- Shore, L. M., & Tetrick, L. E. (1991). A construct validity study of the survey of perceived organizational support. *Journal of Applied Psychology*, 76, 637–643.
- Snape, E., & Redman, T. (2003). An evaluation of a three-component model of occupational commitment: Dimensionality and consequences among United Kingdom human resource management specialists. *Journal of Applied Psychology*, 88, 152–159.
- Somers, M. J. (1995). Organizational commitment, turnover, and absenteeism: An examination of direct and interaction effects. *Journal of Organizational Behavior*, 16, 49–58.
- Swales, S. (2004). Commitment to change: profiles of commitment and in-role performance. *Personnel Review*, 33, 187–204.

- Triandis, H. C. (1992). Cross-cultural research in social psychology. In D. Granberg, & G. Sarup (Eds.), *Social judgment and intergroup relations: Essays in honor of Musafer Sherif* (pp. 229–243). Springer-Verlag: New York.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview.
- Van de Vijer, F., & Leung, K. (1997). *Methods and data analysis for cross-cultural research*. Sage: Thousand Oaks, CA.
- Vandenberghe, C. (2003). Application of the three-component model to China: issues and perspectives. *Journal of Vocational Behavior*, 62, 516–523.
- Vandenberghe, C., Stinglhamber, F., Bentein, K., & Delhaise, T. (2001). An examination of the cross-cultural validity of a multidimensional model of commitment in Europe. *Journal of Cross-Cultural Psychology*, 32, 322–347.
- Wasti, S. A. (2002). Affective and continuance commitment to the organization: test of an integrated model in the Turkish context. *International Journal of Intercultural Relations*, 26, 525–550.
- Wasti, S. A. (2003a). Organizational commitment, turnover intentions and the influence of cultural values. *Journal of Occupational and Organizational Psychology*, 76, 303–321.
- Wasti, S. A. (2003b). The influence of cultural values on antecedents of organisational commitment: an individual level analysis. *Applied Psychology: An International Review*, 52, 533–554.
- Wasti, S. A. (2005). Commitment profiles: combinations of organization commitment forms and job outcomes. *Journal of Vocational Behavior*, 67, 290–308.
- Weiner, Y. (1982). Commitment in organizations: a normative view. *Academy of Management Review*, 7, 418–428.